

**REMARKS**

In the Office Action, the Examiner rejected claims 1, 3, 7-8, 12, and 21 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner further rejected claims 24-26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Finally, under 35 U.S.C. § 103(a), the Examiner rejected claims 1-3, 7-8, and 10-23 as being unpatentable over *Vaughan*, U.S. Patent No. 4,800,590, in view of *Frey et al.*, U.S. Patent No. 5,416,921; claims 4-6 and 9 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Mann et al.*, "An Algorithm for Data Replication;" and claim 23 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Endicott et al.*, U.S. Patent No. 5,404,525.

By this paper, Applicant has amended claims 1, 7, 8, 12, 21, and 24 to clarify claim language and to correct errors of a typographical nature. The amendments to these claims were not made for reasons related to patentability or prior art.

*Rule 105 Requirement*

In a previous Office Action dated May 6, 2004, the Examiner issued a Rule 105 requirement for Applicant to file a copy of Davis, R.J., VAXcluster Principles (Digital Press 1993), which is mentioned in the specification. As evidenced by the attached postcard receipt, Applicant complied by filing a Response to Office Action and Response to Requirement for Information on August 6, 2004, together with a copy of VAXcluster Principles. However, in the present Office Action the Examiner stated that the book is not present in the Patent Office file. Applicant notes that the attached stamped postcard shows receipt of the book by the Office. Applicant purchased that copy of the book for the Office at a cost of \$175.00. Therefore, because Applicant has

fully complied with the Rule 105 requirement at significant expense, Applicant respectfully requests the Office to make every effort to locate the book already filed if the Examiner still needs it for examination of the present application.

*Section 112 Rejections*

Claims 1, 3, 7-8, 12, and 21 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant has amended claims 1, 7, 8, 12, and 21 to clarify claim language and to correct errors of a typographical nature. The amendments to these claims were not made for reasons related to patentability or prior art.

Regarding claim 3, the Examiner stated that the claim refers to a “step 3” that is not present in claim 2. Claim 3 depends from claim 2, which in turn depends from claim 1. Thus, claim 3 indirectly includes all of the recitations of claims 1 and 2. Claim 1 recites: “(3) determining whether said first and second values are identical.” Thus, claim 3 is not indefinite because there is clear antecedent basis for its recitation of a “step 3” by virtue of its indirect dependence from claim 1.

*Section 101 Rejections*

The Examiner rejected claims 24-26 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicant respectfully traverses these rejections. First, the Examiner has given no reasoning or citations to support his plain statement that “[c]laims 24-26 refer to ‘a computer data signal’, which is non-statutory subject matter.” (2/9/05 Office Action, p. 3.) Without knowing the Examiner’s grounds for alleging that the claims recite non-statutory subject matter, Applicant is unsure how to respond.

The M.P.E.P. guidance for Examiners includes several examples of statutory signal claims. For example, the M.P.E.P. states that “a signal claim directed to a

practical application of electromagnetic energy is statutory regardless of its transitory nature.” (M.P.E.P. 2106(IV) (8<sup>th</sup> ed. 2001, 2nd revision May 2004).) A method which requires generating and manipulating signals from seismic energy waves is another example given of statutory subject matter. (Id.)

Further, claim 24 is not directly solely to a computer data signal. Instead, it recites a computer data signal embodied in a carrier wave and representing sequences of instructions which cause a remote computer to perform steps including storing, sending, determining, and executing. “[C]omputers [are] generally recognized as devices capable of performing or implementing process steps, or serving as components of an apparatus, without negating patentability of the process or the apparatus.” *Arrhythmia Research Tech. Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1056 (Fed. Cir. 1992). As the M.P.E.P. states, the question is “not how the computer performs the process, but what the computer does to achieve a practical application.” M.P.E.P. § 2106. The computer data signal of claim 24 represents instructions which cause a remote computer to store data, send an access request from a node to a device, and execute the access request, among other things. Thus, Applicant submits that claim 24, and its dependent claims 25-26, recite subject matter squarely within section 101. Applicant therefore requests the timely allowance of claims 24-26.

#### *Section 103 Rejections*

The Examiner further cited 35 U.S.C. § 103(a) to reject claims 1-3, 7-8, and 10-23 *Vaughan* in view of *Frey et al.*; claims 4-6 and 9 in view of *Vaughan* and *Frey et al.* further in view of *Mann et al.*; and claim 23 as being unpatentable over *Vaughan* and *Frey et al.* further in view of *Endicott et al.*

Applicant respectfully traverses these rejections because the Examiner has not made the prima facie case necessary to support obviousness rejections under 35 U.S.C. § 103(a). For a proper rejection under section 103(a), the references, taken alone or combined, must teach or suggest each and every element recited in the claims. M.P.E.P. § 2143.03 (8<sup>th</sup> ed. 2001, 2nd revision May 2004). Because claims 1-23 contain recitations not shown by the Examiner in any of the cited references, Applicant requests the reconsideration and withdrawal of the section 103 rejections.

For example, claim 1 recites a method for preventing access to a shared peripheral device by a processor-based node in a multinode system including the step of storing at the peripheral device **a first unique value representing a first configuration of the multinode system**. The Examiner has not shown that either *Vaughan* or *Frey et al.* teaches or suggests such a method.

In the Office Action, the Examiner seems to allege that the password generation in *Vaughan* teaches this step. (2/9/05 Office Action, p. 4.) *Vaughan* discloses a portable password generator that can be used to remotely access a lock computer that controls access to a host computer. (*Vaughan*, Abstract; Fig. 2.) Clocks in the password generator and lock computer are synchronized and a pseudo-random number sequence is associated with a user's PIN. (*Id.*, col. 6, ll. 13-23.) When the PIN is entered into the password generator, "the password generator 10 utilizes a portion of the pseudo-random number sequence, for example, six digits of the sequence, and the time signal from clock 30 to generate a password for access to host computer 52." (*Id.*, col. 6, ll. 37-41.) This password is then sent to the lock computer, which compares it to "a password generated during the same time interval by the lock computer 50 on the

basis of the same portion of the stored pseudo-random number sequence identified by the generator identification and a time signal from clock 84.” (*Id.*, col. 6, ll. 55-64.)

Neither the password of *Vaughan* nor any of the values used in generating the password teaches or suggests storing at a peripheral device a first unique value representing a first configuration of a multinode system. The password represents a combination of a random number and a clock signal. The pseudo-random number sequence of the reference is generated “on the basis of a seed input from the random number generator 80.” (*Vaughan*, col. 5, ll. 45-48.) The PIN identifies a user making an access request. The generator identification identifies the password generator. None of these could be construed as teaching or suggesting storing at the peripheral device a first unique value representing a first configuration of the multinode system. Indeed, the Examiner admitted that *Vaughan* does not even disclose a multinode system. (2/9/05 Office Action, p. 5.)

Further, the Examiner has not shown a teaching or suggestion in *Frey et al.* of storing at a peripheral device a first unique value representing a first configuration of a multinode system. In the Office Action, the Examiner stated that *Frey et al.* discloses a shared peripheral device being used in a multinode system, but made no assertion that the reference teaches or suggests storing at a peripheral device a first unique value representing a first configuration of a multinode system.

Claim 1 further recites the step of sending an access request from a processor-based node to a shared device, the request including a **second unique value representing a second configuration of the multinode system**. The Examiner has also not shown a teaching or suggestion of this claim element. In the Office Action, the

Examiner seems to allege that the password generation in *Vaughan* also teaches this step. (2/9/05 Office Action, p. 4.) As discussed above, *Vaughan* does not teach or suggest any value representing a configuration of a multinode system. By the Examiner's own admission, *Vaughan* does not disclose a multinode system at all. (2/9/05 Office Action, p. 5.)

Further, the Examiner has not shown a teaching or suggestion in *Frey et al.* of sending an access request from a processor-based node to a shared device, the request including a second unique value representing a second configuration of the multinode system. In the Office Action, the Examiner stated that *Frey et al.* discloses a shared peripheral device being used in a multinode system, but made no assertion that the reference teaches or suggests sending an access request including a second unique value representing a second configuration of the multinode system.

Failing to show a teaching or suggestion of every element of claim 1 in the cited references, the Examiner has not made a prima facie case of obviousness. Applicant therefore requests the withdrawal of the section 103 rejection of claim 1. Claims 2-3 are nonobvious at least by virtue of their dependence from nonobvious claim 1, and Applicant therefore requests the withdrawal of the section 103 rejections of claims 2-3.

Claims 4-6 depend from claim 1 and were rejected over the combination of *Vaughan* and *Frey et al.* further in view of *Mann*. However, the Examiner has not shown a teaching or suggestion in *Mann* of either storing at the peripheral device a first unique value representing a first configuration of the multinode system or sending an access request from a processor-based node to a shared device, the request including a second unique value representing a second configuration of the multinode system.

Instead, *Mann* is cited merely as teaching the use of epoch variables to identify inactive replicas. Because the Examiner has not shown that the combination of *Vaughan*, *Frey et al.*, and *Mann* teaches or suggests every element of claims 4-6, the claims are nonobvious over the cited references and Applicant requests their timely allowance.

Claim 7 recites an apparatus for preventing access to at least one shared peripheral resource including a configuration value module configured to **generate a unique value based upon a new membership list and to store the unique value locally at each node on a multinode system**. The Examiner seems to allege that this claim element is taught by the password generation of *Vaughan*. (2/9/05 Office Action, p. 6.) However, as discussed above with respect to claim 1, *Vaughan* does not teach or suggest a unique value based upon a membership list of a multinode system. In fact, as the Examiner acknowledged, *Vaughan* does not contemplate a multinode system at all. Furthermore, the reference does not teach or suggest a module that stores the unique value locally at each node on a multinode system. Again, *Vaughan* does not even disclose a multinode system.

Furthermore, the Examiner has not alleged that *Frey et al.* teaches or suggests a configuration value module configured to generate a unique value based upon a new membership list and to store the unique value locally at each node on a multinode system. *Frey et al.* teaches a fence group of sub-systems that access a shared resource. (*Frey et al.*, col. 7, ll. 56-60.) Each fence group has a common identifier called a sub-system authority parameter that permits fencing of an entire group. (*Id.*, col. 20, ll. 33-35.) The sub-system authority parameter is based upon a system clock. (*Id.*, col. 34, ll. 60-62; Fig. 9.) Thus, the sub-system authority parameter of the

reference does not teach or suggest a unique value based upon a new membership list. Also, the sub-system authority parameter of *Frey et al.* is not stored locally at each node on a multinode system. Instead, it is stored in a central hardware fence table. Individual subsystems receive only a token with a pointer to a central software fence table which in turn contains pointers to the central hardware fence table. (*Frey et al.*, col. 23, ll. 19-27; Fig. 4.)

Because the Examiner has not shown a teaching or suggestion of every element of claim 7 in the cited references, Applicant requests the withdrawal of the section 103 rejection of claim 7. Claims 8 and 10-13 are nonobvious at least by virtue of their dependence from nonobvious claim 7 and Applicant therefore requests the withdrawal of the section 103 rejections of claims 8 and 10-13.

Claim 9 depends from claim 7 and was rejected over the combination of *Vaughan* and *Frey et al.* further in view of *Mann*. However, the Examiner has not shown a teaching or suggestion in *Mann* of a configuration value module configured to generate a unique value based upon a new membership list and to store the unique value locally at each node on a multinode system. Instead, *Mann* is cited merely as teaching the use of epoch variables to identify inactive replicas. Because the Examiner has not shown that the combination of *Vaughan*, *Frey et al.*, and *Mann* teaches or suggests every element of claim 9, the claim is nonobvious over the cited references and Applicant requests its timely allowance.

Claim 14 recites a computer usable medium comprising a storage module configured to **store a first unique value representing a first configuration of a multinode system**. The computer usable medium of claim 14 further comprises a



reception module configured to receive access requests including **a second unique value representing a second configuration of the multinode system**. As discussed above with respect to claim 1, the Examiner has not shown that *Vaughan and Frey et al.*, taken alone or together, teach or suggest these elements. Thus, the Examiner has not made a prima facie case of obviousness and Applicant requests the withdrawal of the section 103 rejection of claim 14. Claims 15-16 are nonobvious at least by virtue of their dependence from nonobvious claim 14, and Applicant therefore requests the withdrawal of the section 103 rejections of claims 15-16.

Claim 17 recites a computer usable medium having computer readable code embodied therein for preventing access to a shared peripheral device comprising a configuration value module configured to **generate a unique value based upon a new membership list and to store the unique value locally at each node on a multinode system**. As discussed above with respect to claim 7, the Examiner has not shown that *Vaughan and Frey et al.*, taken alone or together, teach or suggest such a structure. Thus, the Examiner has not made a prima facie case of obviousness and Applicant requests the withdrawal of the section 103 rejection of claim 17. Claims 18-23 are nonobvious at least by virtue of their dependence from nonobvious claim 17, and Applicant therefore requests the withdrawal of the section 103 rejections of claims 18-23.

Claim 23 was also rejected over *Vaughan and Frey et al.* further in view of *Endicott et al.* However, the Examiner does not allege that *Endicott et al.* teaches or suggests a configuration value module configured to generate a unique value based upon a new membership list and to store the unique value locally at each node on a

multinode system. Instead, *Endicott et al.* is cited merely as teaching object oriented programming including modules and sub-modules. Because the Examiner has not shown that the combination of *Vaughan, Frey et al.*, and *Endicott et al.* teaches or suggests every element of claim 23, the claim is nonobvious over the cited references and Applicant requests its timely allowance.

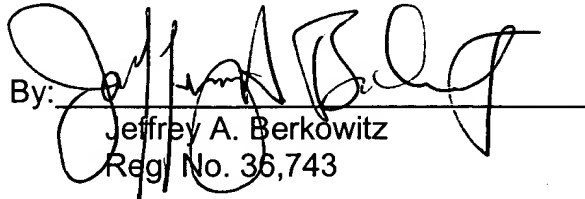
In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: May 9, 2005

By:   
Jeffrey A. Berkowitz  
Reg. No. 36,743

ATTACHMENT:

Stamped postcard showing receipt of Davis, "VAXcluster Principles"